

DataNucleus AccessPlatform provides persistence and retrieval of data to a range of datastores using a range of APIs, with a range of query languages. It is provided under the Apache 2 license, and supports persistence to the following datastores : RDBMS, Cassandra, MongoDB, HBase, Neo4j, LDAP, Excel (XLS/OOXML), ODF, XML, JSON, Amazon S3, GoogleStorage, [db4o, NeoDatis]

If we want to persist java object into any type of database we can use DataNucleus. We can also query data from db table.

To achieve this we need these things

1. orm-->

package-mysql.orm

```
1 <?xml version="1.0"?>
2 <!DOCTYPE orm SYSTEM "file:/javax/jdo/orm.dtd">
3 <orm>
4   <package name="org.datanucleus.samples.jdo.tutorial">
5     <class name="Inventory" table="INVENTORIES">
6       <field name="name">
7         <column name="INVENTORY_NAME" length="100"/>
8       </field>
9       <field name="products" table="INVENTORY_PRODUCTS">
10        <join/>
11      </field>
12    </class>
13
14    <class name="Product" table="PRODUCTS">
15      <inheritance strategy="new-table"/>
16      <field name="id">
17        <column name="PRODUCT_ID"/>
18      </field>
19      <field name="name">
20        <column name="PRODUCT_NAME" length="100"/>
21      </field>
22    </class>
23
24    <class name="Book" table="BOOKS">
25      <inheritance strategy="new-table"/>
26      <field name="author">
27        <column length="40"/>
28      </field>
29      <field name="isbn">
30        <column length="20" jdbc-type="CHAR"/>
31      </field>
32      <field name="publisher">
33        <column length="40"/>
34      </field>
35    </class>
36
37    <class name="Test" table="Testing_Surya">
38      <inheritance strategy="new-table"/>
39      <field name="id">
40        <column name="PRODUCT_ID"/>
41      </field>
42      <field name="name">
```

```

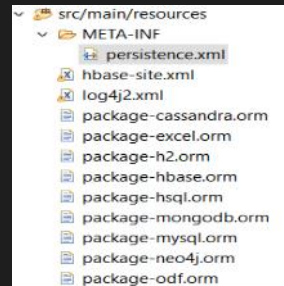
10         <column name="PRODUCT_ID"/>
11     </field>
12     <field name="name">

```

Contains mapping between java class and mysql table.

2. persistence.xml

Here will provide the db url the user and password of the desired database we want to use



```

package-mysq... persistence.xml Product.java Main.java Book.java datanucleus.log Test.java Inventory.java package.jdo
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <persistence xmlns="http://java.sun.com/xml/ns/persistence"
3   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4   xsi:schemaLocation="http://java.sun.com/xml/ns/persistence http://java.sun.com/xml/ns/persistence/persistence_1_0.xsd" version="1.0">
5
6   <!-- Tutorial "unit" -->
7   <persistence-unit name="test">
8     <exclude-unlisted-classes/>
9     <properties>
10      <!-- ENABLE THESE FOR H2 -->
11      <!--
12      <property name="javax.jdo.option.ConnectionURL" value="jdbc:h2:mem:nucleus1"/>
13      <property name="javax.jdo.option.ConnectionUserName" value="sa"/>
14      <property name="javax.jdo.option.ConnectionPassword" value=""/>
15      <property name="javax.jdo.option.Mapping" value="h2"/>
16
17      <!-- ENABLE THESE FOR HSQLDB -->
18      <!--property name="javax.jdo.option.ConnectionURL" value="jdbc:hsqldb:mem:nucleus1"/>
19      <property name="javax.jdo.option.ConnectionUserName" value="sa"/>
20      <property name="javax.jdo.option.ConnectionPassword" value=""/>
21      <property name="javax.jdo.option.Mapping" value="hsqldb"/>
22
23      <!-- ENABLE THESE FOR MySQL/MariaDB -->
24      <!-- Change the "nucleus" to your database name, and the user/password -->
25      <property name="javax.jdo.option.ConnectionURL" value="jdbc:mysql://localhost:3307/test"/>
26      <property name="javax.jdo.option.ConnectionUserName" value="durga"/>
27      <property name="javax.jdo.option.ConnectionPassword" value="durga"/>
28      <property name="javax.jdo.option.Mapping" value="mysql"/>
29
30      <!-- ENABLE THESE FOR ODF -->
31      <!-- Change the "tutorial.ods" to include the path to your ODF file -->
32      <!--property name="javax.jdo.option.ConnectionURL" value="odf:file:tutorial.ods"/>
33      <property name="javax.jdo.option.Mapping" value="odf"/>
34
35      <!-- ENABLE THESE FOR EXCEL -->
36      <!-- Change the "tutorial.xls" to include the path to your Excel file -->
37      <!--property name="javax.jdo.option.ConnectionURL" value="excel:file:tutorial.xls"/>
38      <property name="javax.jdo.option.Mapping" value="excel"/>
39
40      <!-- ENABLE THESE FOR MONGODB -->
41      <!--property name="javax.jdo.option.ConnectionURL" value="mongodb://localhost/nucleus1"/>
42      <property name="javax.jdo.option.Mapping" value="mongodb"/>

```

In addition to that we will need package.jdo and we need to enhance the classes.